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10/529,390

03/28/2005

Michael Porat

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EXAMINER

MATTER, KRISTEN CLARETTE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,390	Applicant(s) PORAT, MICHAEL	
	Examiner KRISTEN C. MATTER	Art Unit 3771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,8-13,15,16,18-20,23 and 27-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,6,8-13,15,16,18-20,23 and 27-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 December 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This Action is in response to the amendment filed on 12/24/2009. Claims 1 and 27 have been amended, claims 30-33 have been added, and no claims have been cancelled. Currently, claims 1, 2, 6, 8-13, 15, 16, 18-20, 23, and 27-33 are pending in the instant application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 30 and 31 both claim dimensions of “about” a certain numerical range. The term “about” renders the claims indefinite because it is unclear what numerical dimensions must be disclosed by the prior art to read on the claims (i.e., is the range able to be modified on both the lower and upper limits of the range or just one or the other?). Examiner suggests deleting the term "about" to overcome the rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 8, 12, 15, 16, 18-20, 23, and 27-33 are rejected under 35 U.S.C. 103(a) as obvious over Lund et al. (US 3,789,839, herein referred to as “Lund”) in view of Nur et al. (US 5,875,775, herein referred to as “Nur”).

Regarding claims 1, 12, 15, 16, 18, 27, and 32, Lund discloses a mask that enables one to breathe filtered air comprising a hood (1) in the form of a hood flat-foldable that when unfolded can cover the entire head (column 3, lines 19-26 and column 4, lines 64-68), the mask consisting essentially of a single bag of transparent film material impermeable to gases (see column 1, lines 55-65), a filter assembly (8) connected to the bag (column 3, lines 35-45), and a separate circumferential elastic sealing and adjusting means comprising an elastic band (11; the tape/band member seals the hood over the "complete periphery" of the neck and is thus circumferential; see column 4, lines 20-30) to seal around the neck and create a single minimum air space between the user and the bag wall (see Figures 6-7 and column 4, lines 5-10, although there is a shrouding member to further reduce the space, the hood itself can be donned and tightened to reduce the air space as much as possible without the shroud). Since the hood is disclosed as being flexible and foldable during storage, and given the nature of the construction and material of the hood, examiner contends that the device is fully capable of being folded to “pocket-size.”

Lund lacks an exhalation valve disposed in the wall of the hood and a pouch. However, Nur discloses a similar flexible protective hood with an exhalation valve (25) that can be embedded in the wall of the hood or a filter (see Figures 1A and 1B). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Lund’s hood with an exhalation valve as taught by Nur in order to better direct exhaust gases from the hood to increase comfort and safety to a wearer. Furthermore, there is nothing

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structurally that would prevent such a modification and it appears as though the device of Lund would perform equally well with an exhalation valve. Additionally, Nur teaches that the hood/filter/valve arrangement allows the device to be folded into small individual packages of 8 x 12 cm and stored in hermetically sealed pouches for carrying in a shirt pocket or handbag (column 6, lines 1-15). Thus, addition of the valve would not affect the ability of Lund's hood to be flat-folded to pocket size, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to have sealed the hood and sealing means of Lund in a pouch as taught by Nur in order to prolong shelf life of the hood and to allow a user to easily carry and store the device in a pocket or handbag for example.

Regarding claim 6, Lund does not specifically state that the hood is transparent only on the part that will be worn opposite the eyes, nose, and mouth. However, absent a critical teaching and/or showing of unexpected results from having the hood be transparent only on the part worn over the front of the face, examiner contends that which parts of the mask are transparent is considered an obvious design consideration to one of ordinary skill in the art because it is well known and commonly used to make hoods from both transparent and non-transparent films. Having the hood be transparent only in the front might make the device easier to quickly don the right way, be more aesthetically pleasing to a user (since others wouldn't see the back of a wearer's head smashed into the hood), etc. Furthermore, there is nothing structurally preventing such a modification and it appears as though the hood of Lund would perform equally well with any or all portions being transparent.

Regarding claim 8, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a

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product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted). In this case, Lund discloses the filter member as sealed to the inner surface of the hood (column 3, lines 35-45) but does not specifically state that it is heat sealed. However, it is well known to persons of ordinary skill in the art to heat seal plastic materials as an effective means for creating air-tight barriers and therefore it would have been obvious to one of ordinary skill in the art to heat seal the filter assembly onto the bag in the modified Lund device.

Regarding claim 19, Lund does not disclose two elastic sealing means. However, it is well known to those of ordinary skill in the art that elastic bands are replaceable, and therefore it would have been an obvious design consideration to one of ordinary skill in the art at the time the invention was made to have provided a second (i.e., spare) elastic sealing means in the modified mask of Lund in order to allow reuse of the device or to replace the sealing means should it break, for example (i.e., there is no limitation in the claims that the two sealing means must be used at the same time even, just that two have to exist).

Regarding claim 20, Lund discloses that the elastic band (11) is of a size and strength to achieve a good seal and still avoid choking the wearer when placed about the neck (see column 4, lines 25-30).

Regarding claim 23, Lund does not specifically state that the hood is turned inside out after use, however, the flexible nature of the hood material inherently allows the hood to be turned inside out after removal from the head.

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Regarding claims 28 and 29, the modified device disclosed by Lund and Nur has all of the structural limitations needed to perform the recited method steps, including unfolding the hood and stretching an elastic sealing means over the hood and around the neck, and is fully capable of doing so. It would have been obvious to one of ordinary skill in the art at the time the invention was made, upon seeing the modified Lund device, to perform the recited method steps of the instant claim 28.

Regarding claims 30 and 31, Lund lacks the claimed dimensions. However, Nur discloses a hood foldable to 8 x12 cm (which is considered "about 10-12.5 cm x 9-11 cm"), and lacks only the claimed thickness. Therefore, absent a critical teaching and/or showing of unexpected results from the claimed folded thickness, examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the modified hood of Lund foldable to a thickness of about 1-2 cm in order to ensure the device could be carried in a shirt pocket as taught by Nur. In addition, there is nothing structurally that would prevent the device from being folded to the claim thickness and it appears as though the device of Lund would perform equally well if folded to the claimed thickness for storage.

Regarding claim 33, Lund as modified by Nur does not specifically disclose that the pouch is sealed under vacuum. However, absent a critical teaching and/or showing of unexpected results from sealing the modified Lund hood under vacuum, examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have hermetically sealed the pouch under vacuum since vacuum packing is a well known and commonly used technique to store goods in plastic to prolong shelf life and minimize space.

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Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lund and Nur as applied to claims 1, 6, 8, 12, 15, 16, 18-20, 23, and 27-33 above, and further in view of McGuinness (H1316). Lund does not disclose the hood as being made of a laminate of more than one plastic material. However, McGuinness discloses a similar protective hood formed from plastic laminates of more than one material (see column 2, lines 43-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the hood of Lund from a plastic laminate as disclosed by McGuinness in order to more effectively protect the user from contaminants for extended periods of time. In addition, it appears as though the device disclosed by Lund would perform equally well with a hood made of a plastic laminate as opposed to a single layer of plastic film.

Claims 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lund and Nur as applied to claims 1, 6, 8, 12, 15, 16, 18-20, 23, and 27-33 above, and further in view of Wen (US 6,681,765).

Regarding claims 9 and 11, Lund is silent as to a multilayer filter with active charcoal and an antiseptic. However, Wen discloses, in a respiration mask, a multilayer filter with charcoal and antiseptic agents including clorohexdine (see column 2, lines 55-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Lund's filter to include multiple layers having active charcoal and an antiseptic agent as taught by Wen in order to more effectively protect the user from viruses and bacteria in the contaminated air. Furthermore, it appears as though the device disclosed by Lund would perform equally well with the multiple layers.

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Regarding claim 10, Wen does not disclose that the charcoal is sandwiched between multiple layers of antiseptic agents. However, absent a critical teaching and/or a showing of unexpected results from having a charcoal layer sandwiched between the antiseptic layers, examiner contends it would have been an obvious design consideration to one of ordinary skill in the art at the time the invention was made to have used two antiseptic layers surrounding a charcoal layer in the modified multilayer filter of Lund in order to use multiple antiseptic agents for example or for more effective protection against viruses and bacteria. Furthermore, it appears as though the device disclosed by Lund, Nur and Wen would perform equally well with the antiseptic layers sandwiching the charcoal layer.

Regarding claim 13, Lund does not disclose the particle sizes filtered by the filter. However, the limitation "greater than 2 microns" includes macroparticles that would inherently be filtered out by the filter of Lund (i.e., large dust). In any case, Wen discloses that the filter filters out particles in excess of 0.3 microns (column 5, line 60), which overlaps the claimed range of greater than 2 microns. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have designed the modified filter of Lund to filter out particles greater than 2 microns in order to prevent contaminants from being breathed in by the user.

Response to Arguments

Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

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Response to Amendment

The declaration under 37 CFR 1.132 filed 12/24/2009 is insufficient to overcome the rejection of claims 1, 2, 6, 8-13, 15, 16, 18-20, 23, and 27-33 based upon any of the prior or currently applied prior art because the declaration does not clearly establish a nexus between the claimed invention and the evidence of commercial success because there is no evidence demonstrating that the success is not the result of heavy promotion or advertising, shifts in advertising, consumption by purchasers normally tied to applicant or assignee, or other business events extraneous to the merits of the claimed invention (i.e., there are no figures presented at all other than the number of units sold in various markets). Furthermore, gross sales figures do not show commercial success absent evidence as to market share, time period in which the product was sold, or what sales would normally be expected in the market. Accordingly, the evidence presented in the declaration has been considered by the examiner but was not found to be convincing.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hosouchi et al. is cited to show another protective mask foldable to the size of a card box.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KRISTEN C. MATTER whose telephone number is (571)272-5270. The examiner can normally be reached on Monday - Friday 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Kristen C. Matter/
Examiner, Art Unit 3771

/Justine R Yu/
Supervisory Patent Examiner, Art Unit 3771